To: Garrahan, Kevin[Garrahan.Kevin@epa.gov]

Cc: Sayles, Gregory[Sayles.Gregory@epa.gov]; Taft, Sarah[Taft.Sarah@epa.gov]; Koglin,

Eric[Koglin.Eric@epa.gov]

From: Choudhury, Harlal

Sent: Wed 8/12/2015 1:01:28 PM

Subject: RE: PALs

,,,,,

As listed in the PAL table:

Arsenic:

Oral (mg/L)

24Hr 30 day 90 day 2yr.

PAL 1 3.5 1.0 0.84 0.14

PAL2 4.7 1.9 1.3 0.42

PAL3 140 4.2 NR 0.8

Inhalation:

PAL1: - NR-----

PAL2 0.11 0.021 NR NR

PAL3 0.32 0.063 NR NR

We do not have values for other metals like lead, cadmium, zinc.

LEAD; EPA recommends IEUBK model for Lead

Zinc: Available in IRIS

Hope this will help.

Thanks Kevin

Harlal

From: Garrahan, Kevin

Sent: Tuesday, August 11, 2015 5:11 PM

To: Choudhury, Harlal

Cc: Sayles, Gregory; Taft, Sarah; Koglin, Eric

Subject: PALs

Harlal,

I'm working in EPA's Emergency Operations Center (EOC) providing technical support on the Gold King Mine/Animas River toxic sludge spill in Colorado. Quick question for you -- Do we have any PALs for the following chemicals of concern:

- 1. Lead
- 2. Arsenic
- 3. Aluminum
- 4. Cadmium
- 5. Lead
- 6. Thallium
- 7. Zinc

I would be surprised if we had PALs for any of these, but would appreciate you double checking. Thanks!

Kevin